

DJI Pilot App – Expanded

By Art Burke
Leesburg, FL
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As this is not being created either from scratch or for profit, I have taken a few liberties. A lot of what's here is what appears in the DJI Phantom 3 Professional user manual. I've introduced numerous screen shots so unfamiliar users can see what it is they're supposed to be seeing when they search for a specific menu. There's also a lot of expanding/expounding, i.e., a bit more detail on some of the items.

I'm not that much of a photographer. Consequently, I've not made much of an effort to expound too much on the camera settings. My attempt is only to more adequately identify what the icons are, the settings definition, etc.

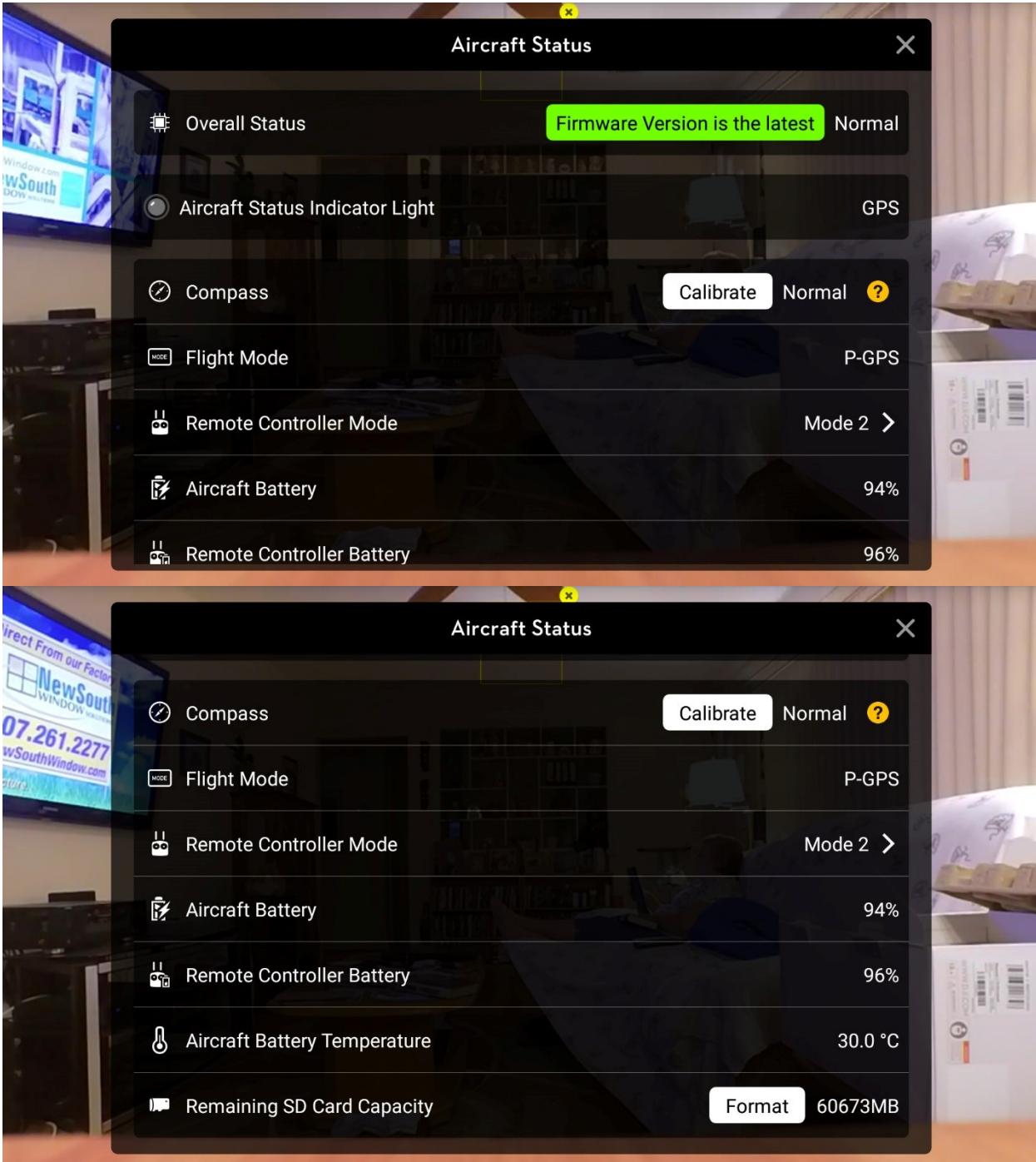
As many users have already found, don't be surprised if you fire up your mobile device and cannot see some of these settings. To see *all* the various settings, you will probably need to have the controller, the Phantom and the Pilot app all running.

Last, but not least – I'm using an Android device, specifically a Samsung Galaxy S5 – a smart phone. These screenshots are what I see on my device. If there's a significant difference in what you see on your device, regardless of whether it's Apple or Android based, my apologies.



Above is the opening screen for the Pilot app. Tap CAMERA to enter the app. Tap DIRECTOR to edit video. Tap STORE to shop. Tap USER CENTER to view video, photos or examine flight logs.

Before you'll actually see the main screen of the Pilot app, you'll see a "status" screen that looks like this:



The two screenshots above unfortunately illustrate a minor problem with the Pilot app. When you see the above page, you only see part of it. There's no indication there's more

at the bottom, but, if you scroll down, you'll see the remainder of the page, as it's displayed here.

Some of the items are informational, but there are a few items that have changeable options:

Calibrate Compass

Change Remote Controller Mode

The Remote Controller Mode is generally Mode 2 in the U.S. (left stick is climb/descend and right stick is forward/backward and left/right). There are options for Mode 1, Mode 3 and a custom mode.

Format SD card.

[1] Flight Mode

 : The text next to this icon indicates the current flight mode. Tap to configure the MC (Main Controller) Settings. These settings allow you to modify flight limits and set the gain values.



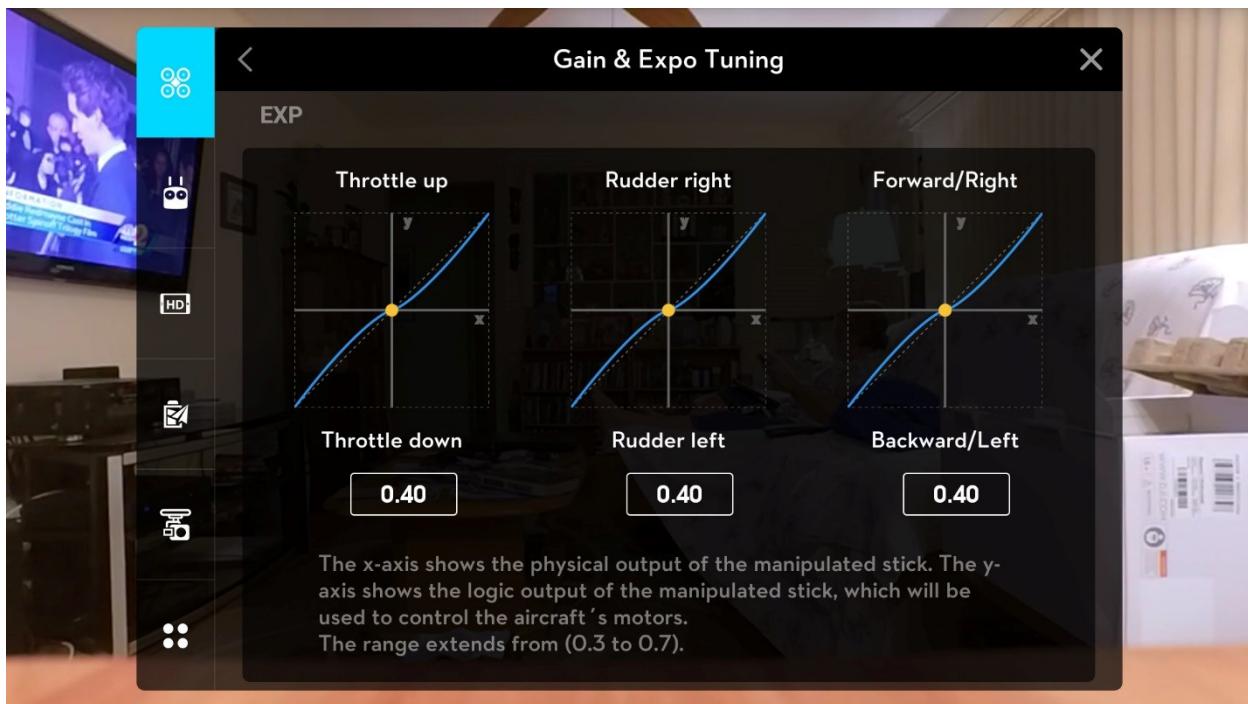
Here, you can obviously make some changes:

Maximum Altitude – anything between 10 and 500 meters.

Distance Limits

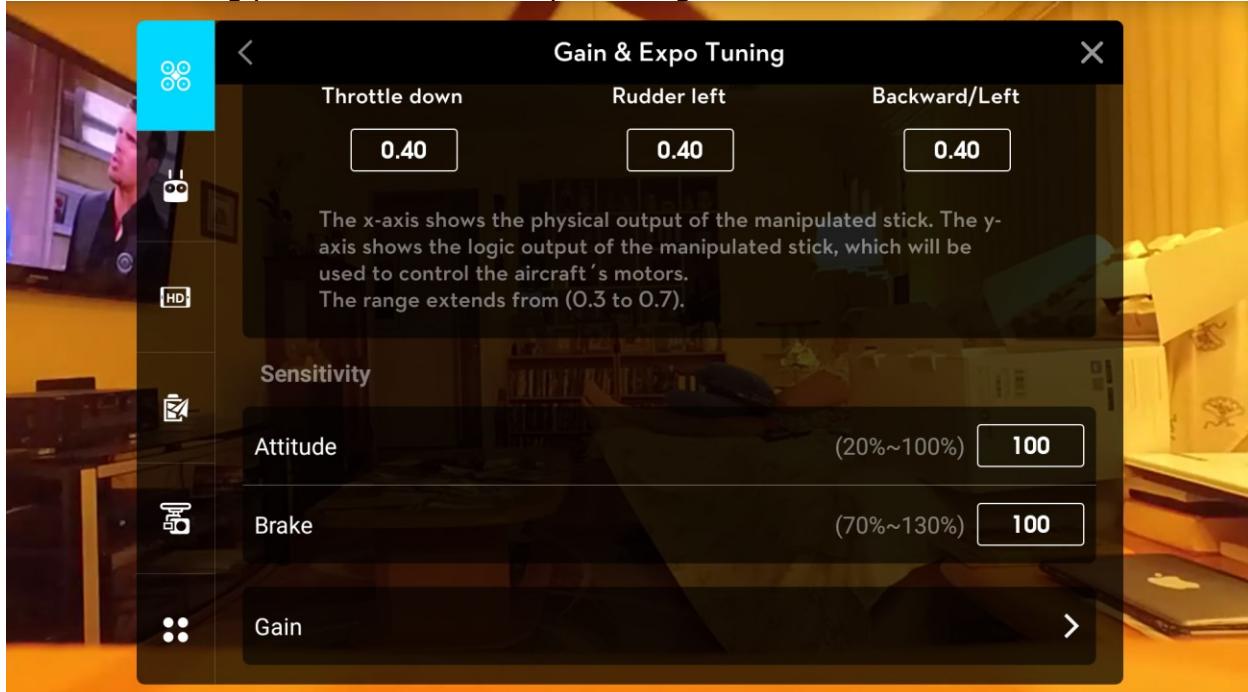
Beginner Mode can be toggled on/off

Gain & Expo Tuning



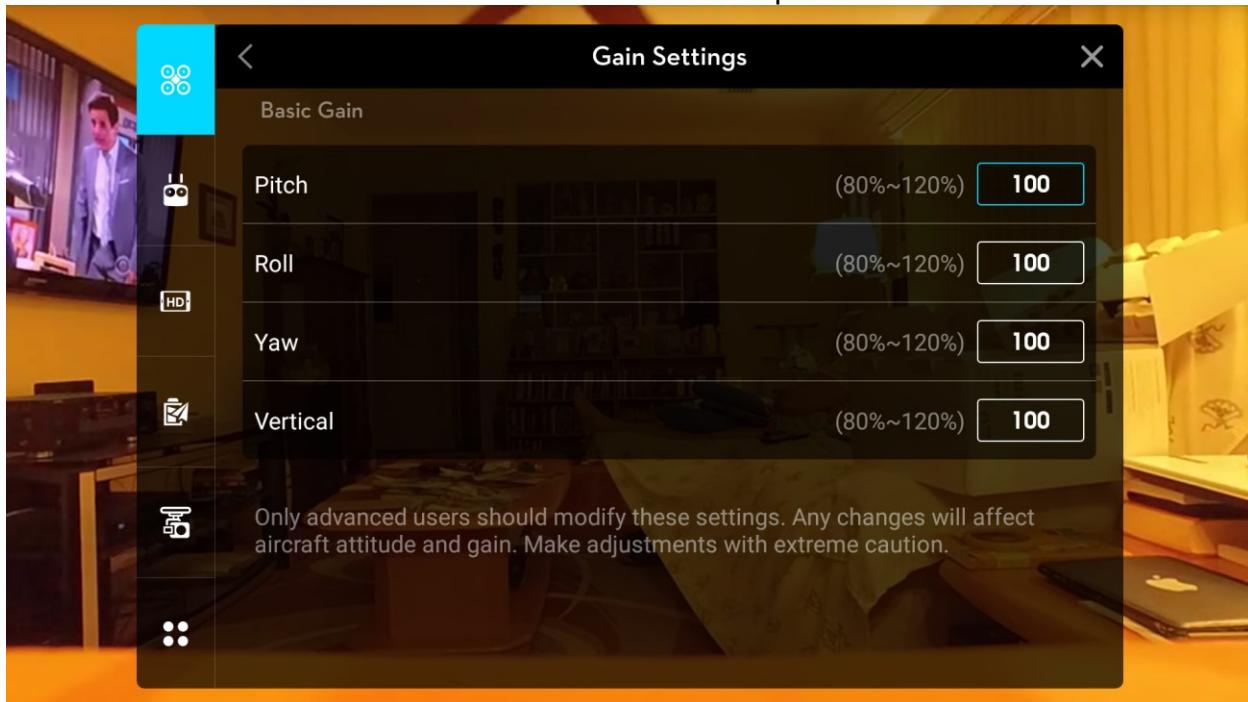
The expo tuning can be used on several of the parameters controlling your Phantom. Essentially, this part allows a little stick movement without producing potentially disastrous effects, i.e., giving the user a little "play" in the stick near the centered position.

And a continuing part of the Gain & Expo Tuning menu:



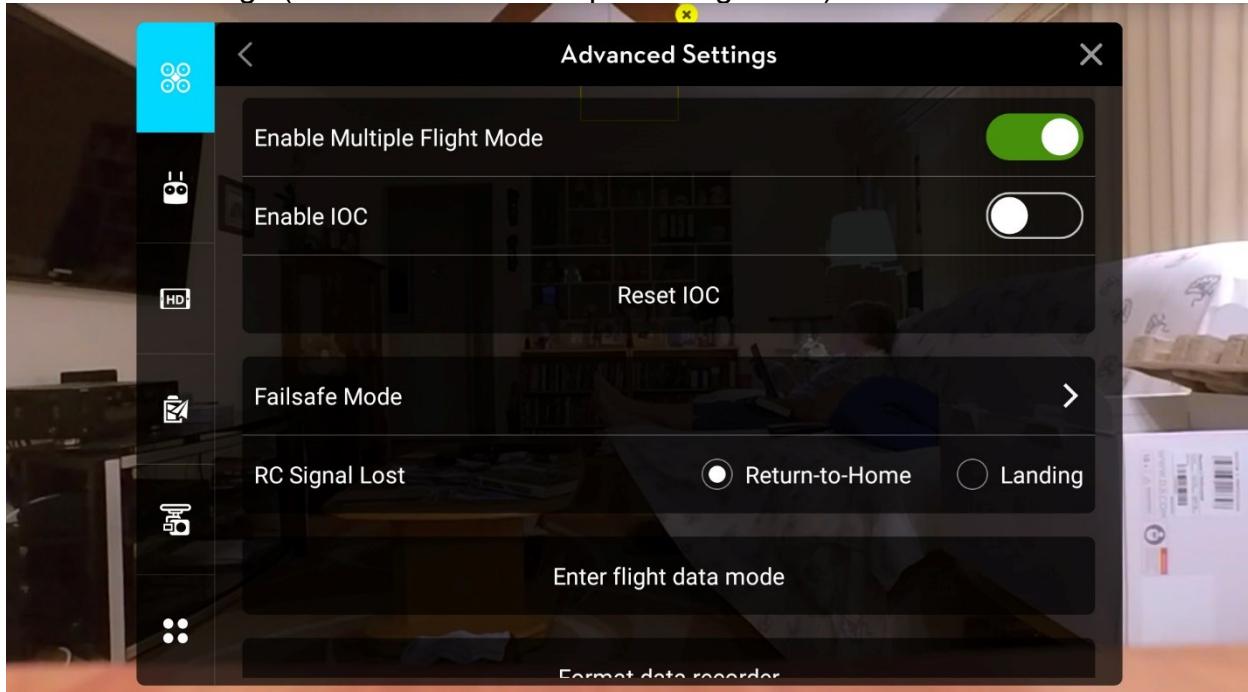
Most of us will likely never have a need to change any of the above settings. Even for non-beginners, gradual changes, if at all, are recommended.

The last item above – Gain – has another menu with options:



Like the previous menu with options we're recommended to leave be, the same applies to these settings. For the very experienced they're available. The rest of us have them, whether we can use them or not!

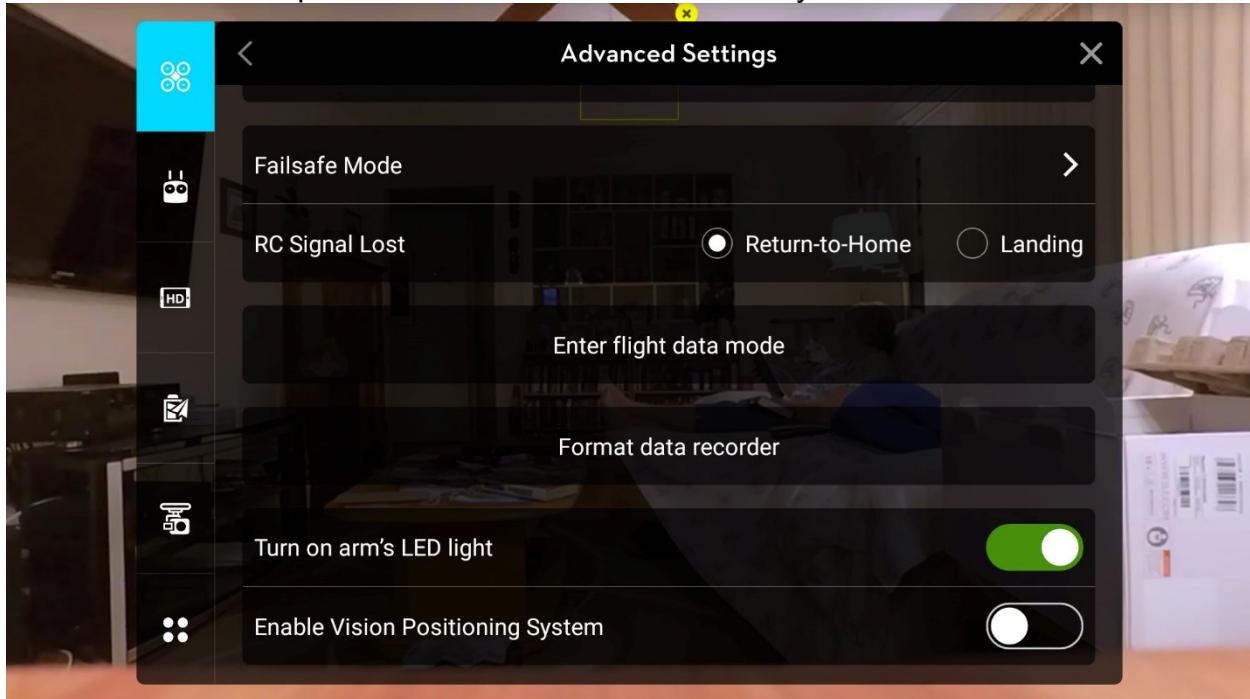
Advanced Settings (still on the Gain & Expo Setting menu)



The multiple flight mode and enabling IOC are options that provide for differing flight modes (chosen on the Remote Controller with the P-A-F switch).

Failsafe Mode – there are a few user options – come home or land on low battery warning or critical battery warning.

And there's one last part of the screen we haven't seen yet:



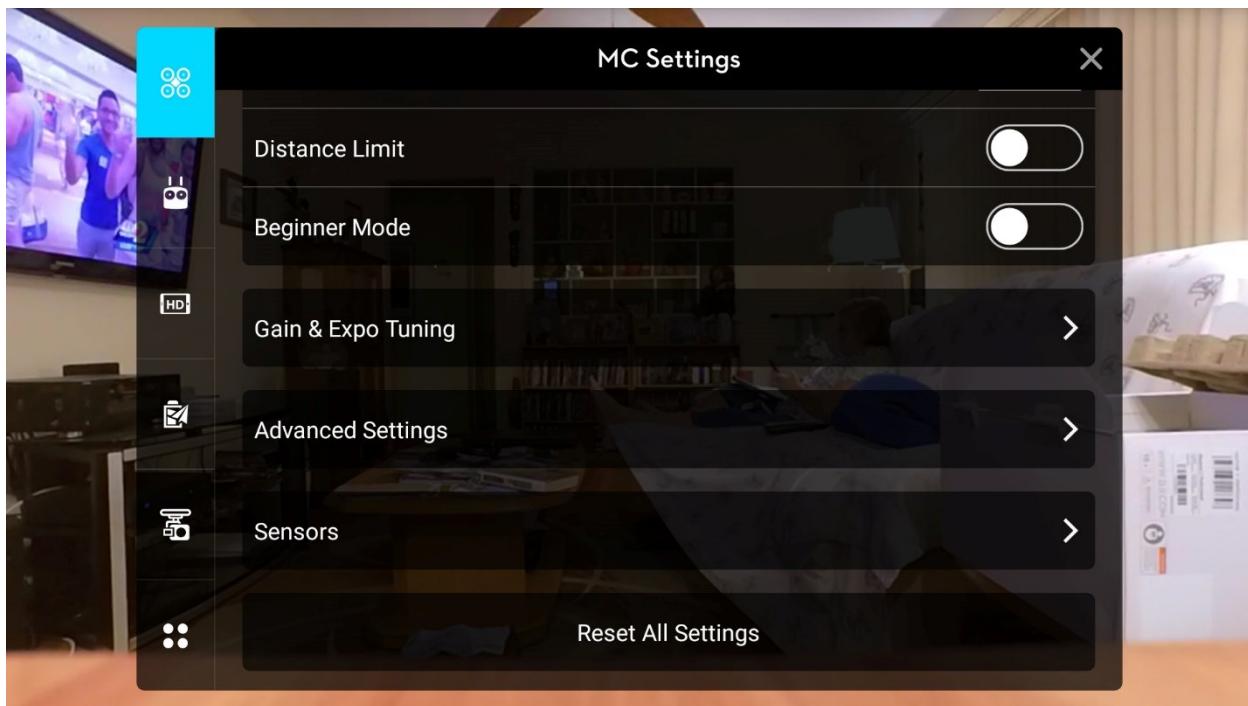
RC Signal Lost – user choice between RTH or Land

Enter flight data mode – user will be prompted to connect the appropriate USB cable to the front USB port of the aircraft. This port is partially hidden by a rubberized flap on the front of the Phantom, below the Phantom label.

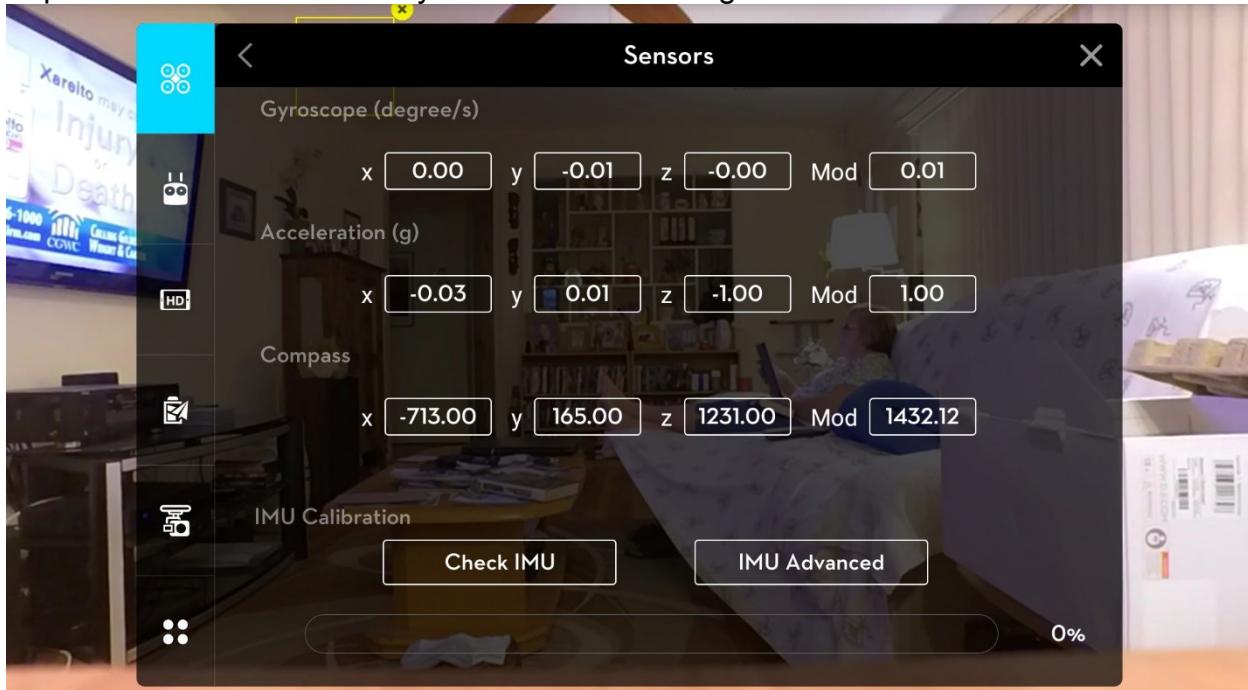
User can download FLY**.DAT files. These files are in a format not easily read by most users, but they can be sent to DJI for analysis when requested.

The slider at the very bottom of this menu can be used to enable/disable the VPS. Many users who feel they're never going to fly inside, have arbitrarily disabled this function.

In case you forgot about it, the MC Settings menu has one last option at the very bottom:



Tap the line for Sensors and you'll see the following:



You can see if the self-checking diagnostics are happy with your IMU or, alternatively, tapping on the IMU Advanced will allow you to calibrate the IMU.

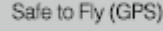
[2] GPS Signal Strength

This icon shows the current strength of GPS signals. Green bars indicate adequate GPS strength.

[3] IOC Settings

 **CL** : This icon displays the IOC setting when the aircraft has entered F-mode. Tap to view the IOC settings menu and select the desired IOC setting.

[4] System Status

 : This icon indicates the current aircraft system status and GPS signal strength.

[5] Battery Level Indicator

 : The battery level indicator provides a dynamic display of the battery level. The colored zones on the battery level indicator represent the power levels needed to carry out different functions.

[6] Remote Controller Signal



: This icon shows the strength of remote controller's signal.



Gimbal Wheel Speed – tapping here will give you the option of altering the gimbal wheel speed anywhere between 0 and 100. A value of 100 moves it quite quickly and 20 moves it rather slowly.

Tapping the RC Calibration opens a dialog box with instructions on calibrating the remote controller.

Tapping Stick Mode shows settings for Modes 1, 2, 3, and custom mode.

[7] HD Video Link Signal Strength

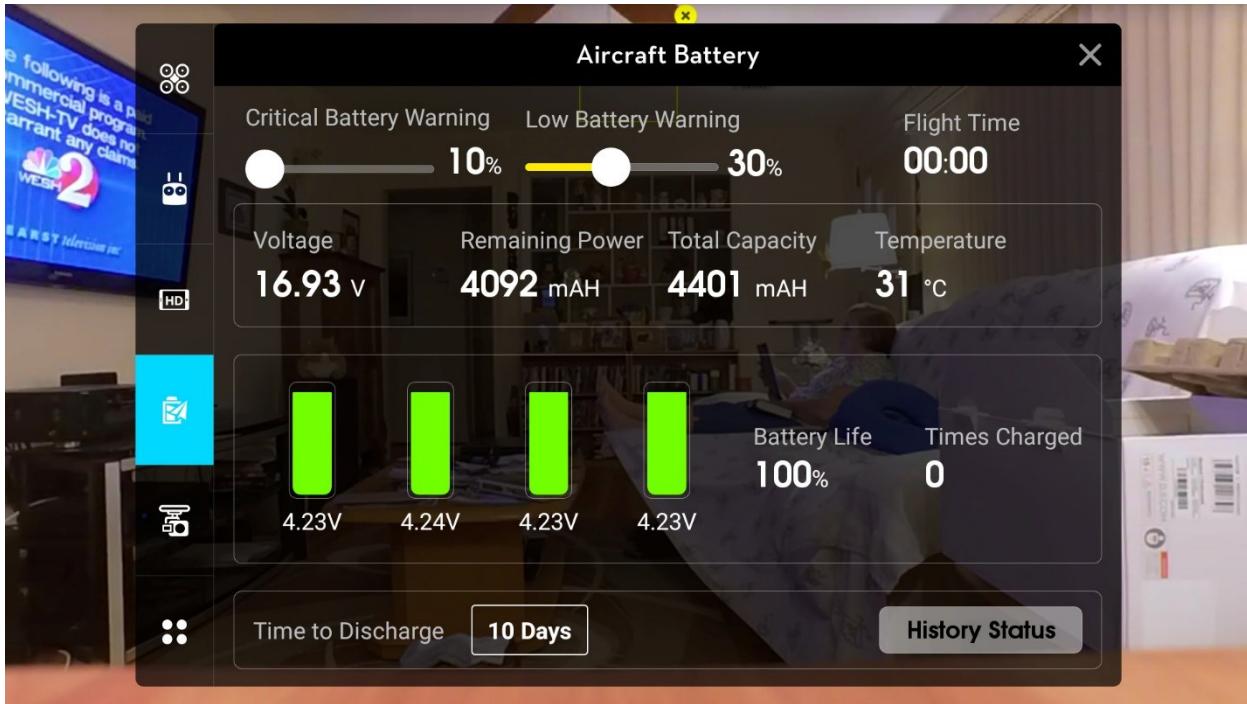
 This icon shows the strength of the HD video downlink connection between the aircraft and the remote controller.

Tapping on this icon will produce a screen that looks like:



Routinely, the channel choice for the Lightbridge signal from the Phantom back to the controller (and hence to your mobile device) is set on Auto, but the user has an option to check the custom button and choose what might look like another channel with no or less interference.

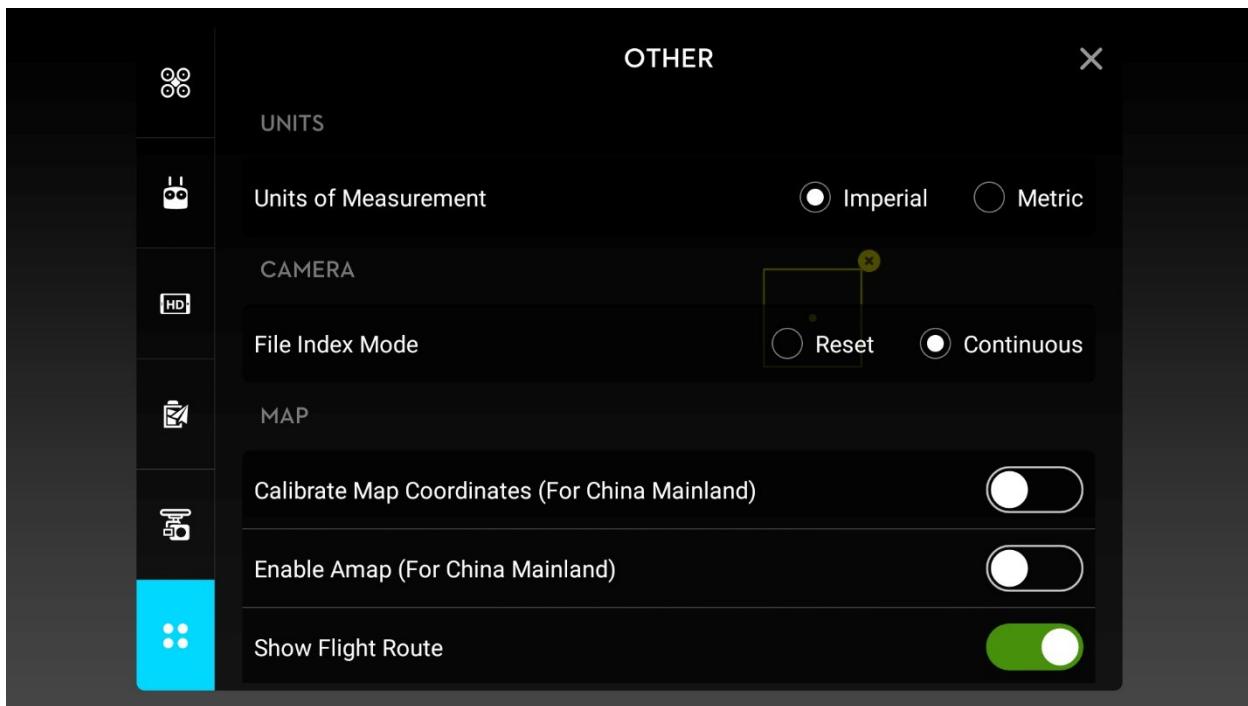
[8] Battery Level



100%: This icon shows the current battery level. Tap to view the battery information menu, set the various battery warning thresholds, and view the battery warning history.

[9] General Settings

: Tap this icon to view the General Settings page. From this page, you can set flight parameters, reset the camera, enable the quick view feature, adjust the gimbal roll value, and toggle the flight route display.

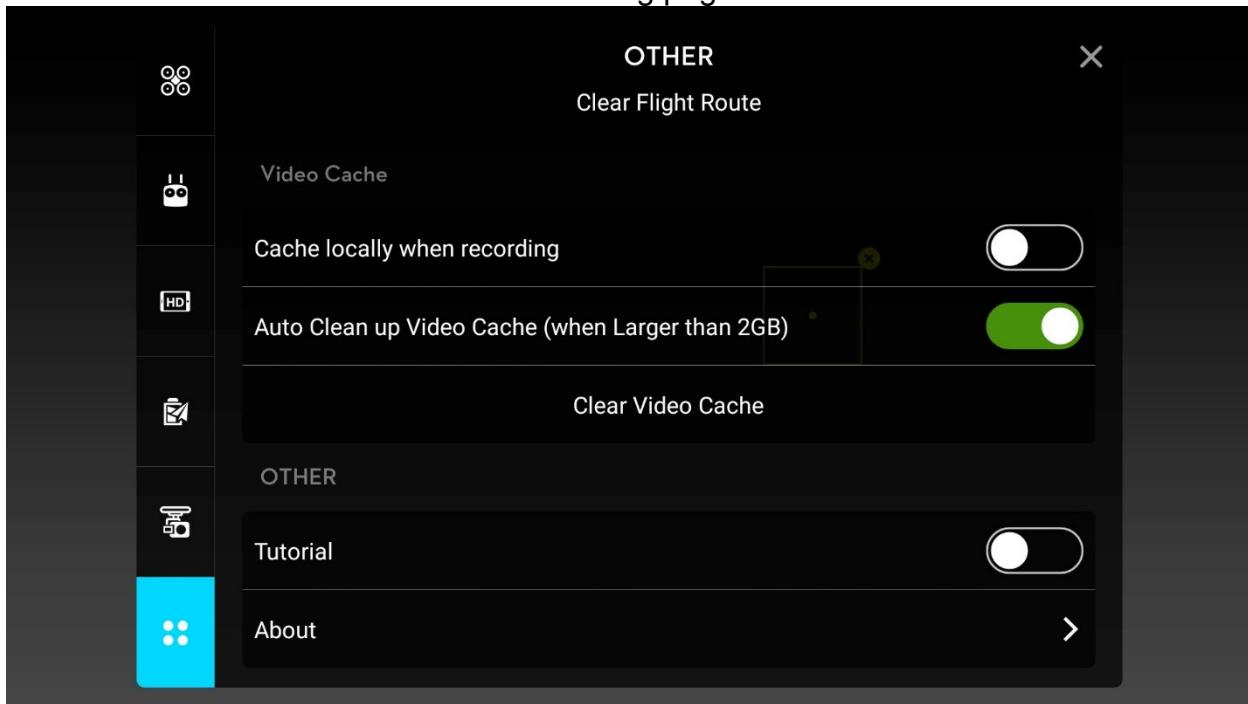


File Index Mode:

Reset – each time you record on the SD card, it will restart with 001.

Continuous – file numbering will continue with the next sequential number rather than starting over.

And here's another "unannounced" continuing page:



Tapping on “Tutorial” seemingly does nothing, but when you return to the main screen (the screen where you see what the camera currently sees), just about all the icons on the screen will have labels to help you identify each icon.

Tapping on “About” will identify the version of the Pilot app you’re currently using, as well as the current installed version of firmware.

[10] Camera Operation Bar Shutter and Recording Settings

 : Tap to enter various camera value settings, including color space for the recording, resolution of the videos, image size and so on.



As you can see above, there are numerous options:

JPEG – choose between JPEG, RAW or JPEG+RAW

Image Size – choose between 16:9 and 4:3

White Balance – select AUTO, Sunny, Cloudy, Incandescent, Neon, Custom

Selecting Custom will provide a temperature slider to select

Video Size – choose between 1080, 4K, etc., and frame rates

Style – permits user to adjust sharpness, contrast and saturation

Color – choose between LOG, None, Vivid, Art, Film or B/W

(Think of LOG as if it were RAW – lots of options during processing)

Tapping the “More” button on the bottom generates yet another array of options:



If you look at the above screenshot, just to the right of the map view (lower left-hand corner), you'll see the little picture with the "mountain" in it? This is the histogram. If you display this (using that Show Histogram shown above), it will help you identify the effect of the current exposure level and adjust accordingly. Essentially, you want the "white" shown in there to be relatively evenly spread horizontally. It's a great tool and easy to learn how to use.

You can also select:

- Show Grid – overlay a grid on the camera display
- Anti-Flicker – hopefully self-explanatory!
- Quick Review – on/off
- Video Format – choose between MP4 and MOV
- NTSC/PAL – Choose between the two
- Reset Camera

Shutter

 : Tap this button to take a single photo. Press and hold this button to select single shot, triple shot or time-lapsed shooting modes.

Record

 : Tap once to start recording video, then tap again to stop recording. You can also press the Video Recording Button on the remote controller, which has the same functionality.

If you press and hold the shutter button, you get a screen like this:



Starting in the upper part of the semi-circle “menu”

Single Shot – the default setting

HDR – High Dynamic Range – in theory, this technique takes three pictures – one slightly overexposed, one slightly underexposed and one correctly exposed, then “marries” the result into a single picture. Reports from users appear mixed.

Burst Mode – take 3, 5 or 7 pictures consecutively.

AEB – Auto-exposure Bracketing – 3 or 5 pictures. Pictures range from underexposed to overexposed, with the “middle” picture correctly exposed. Processing is done by the user after downloading the photos.

Timer – timed exposures with options varying from 5 to 30 seconds.

NOTE: Whatever option is selected, that option remains until changed (or until power off). Whatever option is set is controlled by either the shutter button in the Pilot app, or the shutter button on the right hand corner of the remote controller.

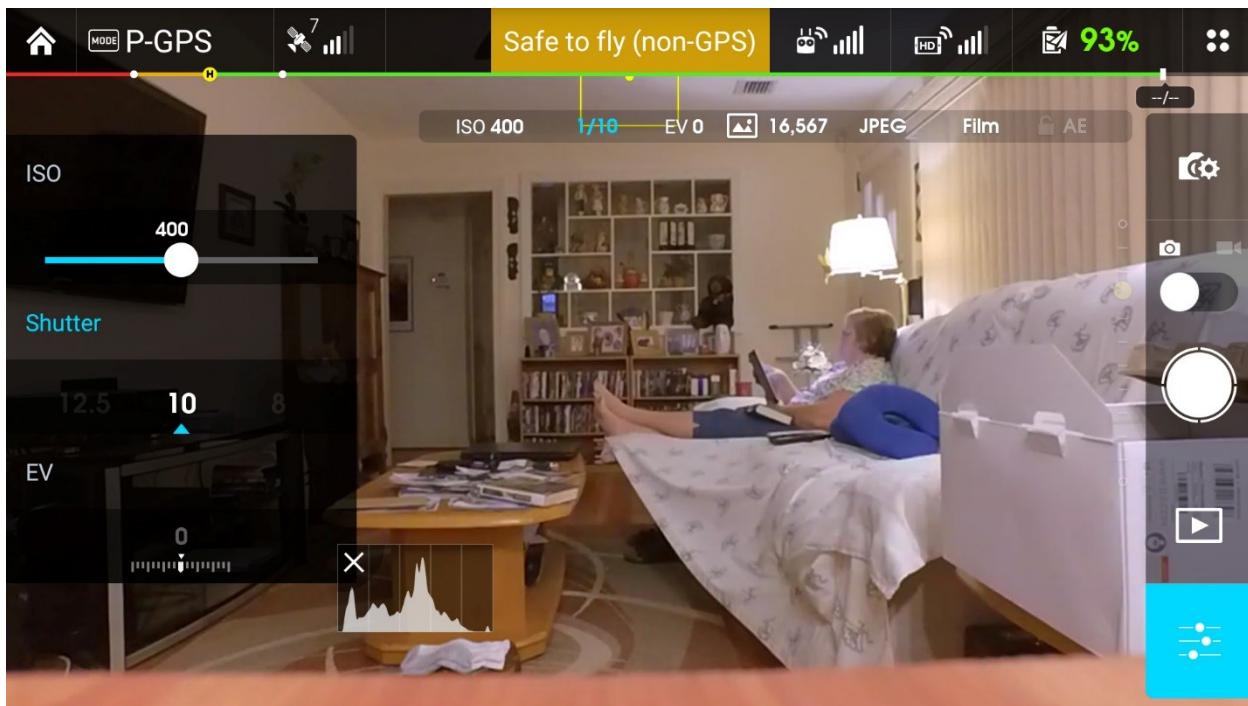
Playback

: Tap to enter the playback page. You can preview photos and videos as soon as they are captured.

Camera Settings



: Tap to set ISO, shutter and auto exposure values of the camera.



The highlighted icon in the extreme right hand corner is an icon that controls manual functions while shooting video. On the extreme left hand side of the screen you'll see settings for ISO, Shutter and EV. Using the wheel on the right hand side of the remote controller, you can alter these settings to help correct your exposure. You can move between the selections by pressing on the wheel (it doubles as a switch) and/or rotating the wheel to increase/decrease the selection value.

DANGER WILL ROBINSON! Just kidding!

When the icon in the lower right is highlighted, you're in manual mode. If you tap that button again, and the highlight goes away, you're back in auto mode! To stay in manual mode, instead of tapping the icon again, "wipe" the settings window (far left) off the screen from right to left – you'll see the camera view again and stay in manual mode. Confusing, isn't it?

[11] Vision Positioning

 : This icon shows the distance between the surface and the Vision Positioning System's sensors. This item #11 actually “belongs to” the last item on the right in the telemetry display below, i.e., the system thinks the Phantom is 1.2m in the air.

[12] Flight Telemetry

H: 39M	D: 1039M	V.S: 8.3M/S	H.S: 24.2M/S	 1.2M
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The Vision Positioning Status icon is highlighted when the Vision Positioning is in operation.

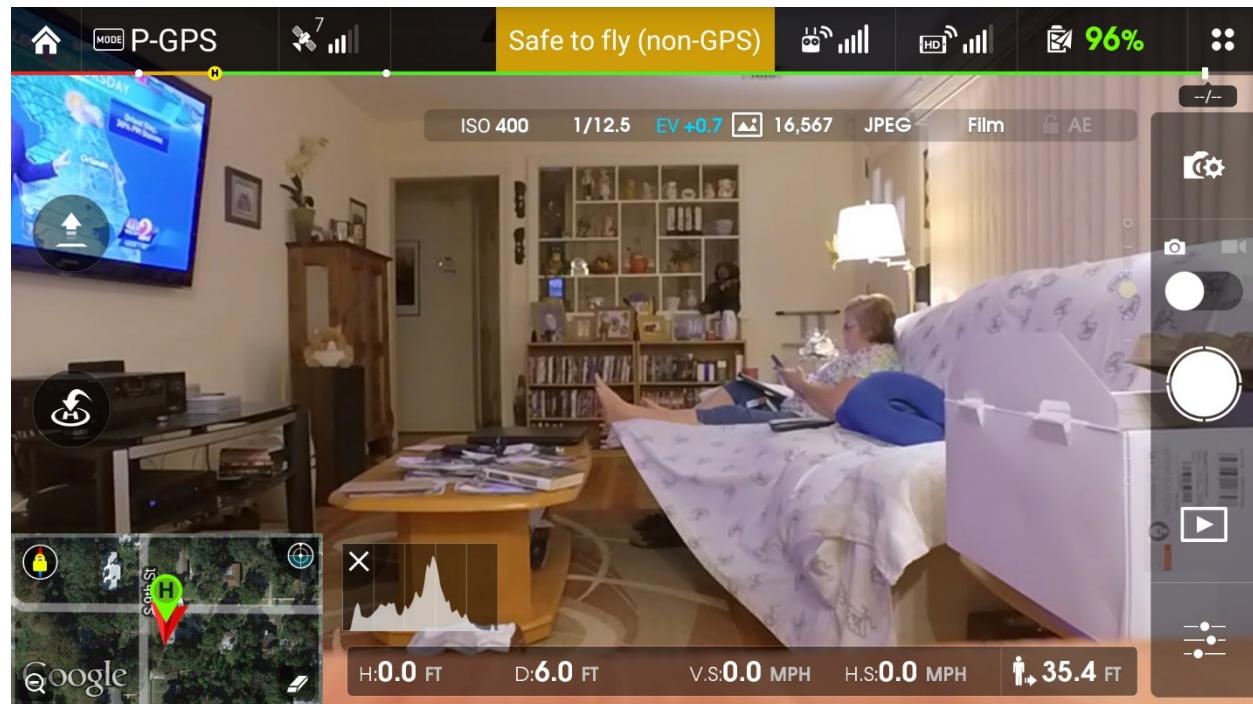
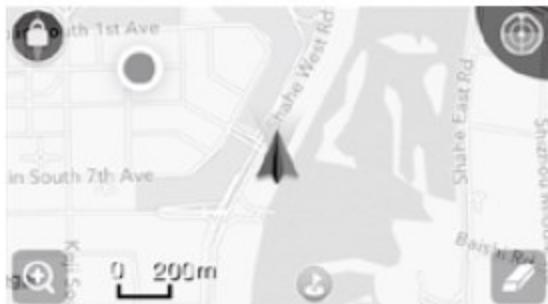
The following information is superimposed on the map view.

Flight attitude is indicated by the flight attitude icon.

- (1) The red arrow shows which direction the aircraft is facing.
- (2) Light blue and dark blue areas indicate pitch.
- (3) The angle of the boundary between the light blue and dark blue areas indicates the roll angle.

[13] Map

Display the flight path of the current flight. Tap to switch from the Camera GUI to the Map GUI



The RTH (Return to Home) icon and the Auto-Land icon are displayed along the left side of the above screenshot.

[14] Return to Home (RTH)



: Initiate RTH home procedure. Tap to have the aircraft return to the last recorded home point.

[15] Auto Takeoff/Landing



: Tap to initiate auto takeoff or landing.

[16] Livestream



: Livestream icon indicates the current video feed is broadcasting live on YouTube. Be sure the mobile data service is available on the mobile device.

[17] Back



: Tap to return to the main GUI.